Contents Volume 61 (1991)

Special Issue: Selected Papers presented at the Sixth International Symposium on Synthetic Membranes in Science and Industry, Tübingen, Germany, September 4–8, 1989

Guest Editorial
H. Strathmann (Stuttgart, Germany) vii

Analysis of gas permeation through composite membranes
K. Kimmerle (Horb a.N., Germany), T. Hofmann and H. Strathmann (Stuttgart, Germany) 1

Influence of composite membrane structure on pervaporation
W. Gudernatsch, Th. Menzel and H. Strathmann (Stuttgart, Germany) 19

Dehydration of organic mixtures by pervaporation. Experimental and theoretical studies on ternary- and multicomponent systems
R. Rautenbach, M. Franke and S.T. Klatt (Aachen, Germany) 31

Mass transfer in ultrafiltration
A.M. Brites and M. Norberta de Pinho (Lisboa, Portugal) 49

Polyurethane structure design for pervaporation membranes
M.M. Cipriano, A. Diogo and M. Norberta de Pinho (Lisboa, Portugal) 65

Characterization of anisotropic UF-membranes: top layer thickness and pore structure
F.P. Cuperus, D. Bargeman and C.A. Smolders (Enschede, Netherlands) 73

Vapour sorption and permeation properties of poly-(dimethylsiloxane) films
I. Blume, P.J.F. Schwering, M.H.V. Mulder and C.A. Smolders (Enschede, Netherlands) 85

Removal of trace organics from aqueous solutions. Effect of membrane thickness
H.H. Nijhuis, M.H.V. Mulder and C.A. Smolders (Enschede, Netherlands) 99

Industrial application of vapour permeation
U. Sander and H. Janssen (Frankfurt a. Main, Germany) 113

The influence of molecular mass of poly(vinyl chloride) on the structure and transport characteristics of ultrafiltration membranes
M. Bodzek and K. Konieczny (Gliwice, Poland) 131

Metal and metal oxides based membrane composites for solid polymer electrolyte water electrolysers
A. Michas and P. Millet (Grenoble, France) 157

Chemical modification of crystalline ultrafiltration membranes and immobilization of macromolecules
S. Küpcü, M. Sára and U.B. Sleytr (Wien, Austria) 167

Current–voltage curves for ion-exchange membranes. Contributions to the total potential drop
V.M. Aguilella (Valencia, Spain), S. Mafe (Albacete, Spain), J.A. Manzanares and J. Pellicer (Valencia, Spain) 177

Facilitated extraction and facilitated transport of non-ionic permeants through ion-exchange membranes: influence of the stability of the permeant/carrier complexes
M. Métayer, D. Langevin, B. El Mahi and M. Pinoche (Mont-Saint-Aignan, France) 191

Inorganic ultrafiltration membranes prepared by a combination of anodic film and sol–gel technologies
M.P. Thomas, R.R. Landham, E.P. Butler, D.R. Cowieson, E. Barlow and P. Kilmartin (Oxon, UK) 215

Transport of nuclear acid bases through cation exchange membranes from poly-(styrenesulfonic acid) and poly-(vinyl alcohol)
T. Uragami, M. Yamamoto and K. Moriyama (Osaka, Japan) 227
Bipolar membranes for purification of acids and bases
Y.C. Chiao, F.P. Chlanda and K.N. Mani (Warren, NJ, USA) 239
Partially cationized cellulose for non-thrombogenic membrane in the presence of heparin and endothelial-cell-surface-heparansulfate (ES-HS)
H. Baumann, R. Keller and E. Ruzicka (Aachen, Germany) 253
Collagen film as a new pervaporation membrane
F. Maser, C. Ströher-Glowienka (Weinheim, Germany), K. Kimmerle (Horb a.N., Germany) and W. Gudernatsch (Stuttgart, Germany) 269
Chitosan membrane with covalently immobilized urease. Pore size distribution
W. Zaborska, B. Krajewska and M. Leszko (Krakow, Poland) 279
Plasma deposition of thin fluorocarbon films for increased membrane hemocompatibility
G. Clarotti, F. Schue, J. Sledz (Montpellier, France), K.E. Geckeler, W. Göpel (Tübingen, Germany) and A. Orsetti (Montpellier, France) 289
Ultrafiltration membrane cell recycle for continuous culture of *Propionibacterium*
J.P.S.G. Crespo, M.J. Moura, J.S. Almeida and M.J.T. Carrondo (Monte de Caparice, Portugal) 303
Enzymatic synthesis of n-butyl oleate in a hollow fiber membrane reactor
M. Habulin and Z. Knez (Maribor, Yugoslavia) 315
Modelling and kinetics of light induced proton pumping of bacteriorhodopsin reconstituted liposomes
I. Eroglu, B.M. Zubat and A. Meral Yücel (Ankara, Turkey) 325

Meeting Announcements 337
Meetings Calendar 338
Author Index Volume 61 (1991) 341
Subject Index Volume 61 (1991) 342